

Interview Summary	Application No. 09/855,853	Applicant(s) MURRY ET AL.	
	Examiner Armando Rodriguez	Art Unit 2828	

All participants (applicant, applicant's representative, PTO personnel):

(1) Armando Rodriguez. (3)_____.

(2) N. Stephan Kinsella. (4)_____.

Date of Interview: 01 March 2004.

Type: a) ☒ Telephonic b) ☐ Video Conference
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.
If Yes, brief description: _____.

Claim(s) discussed: 62.


Identification of prior art discussed: none.

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Examiner discussed with applicant's representative claim language to better define and clarify the invention. The claim language pertained to the preamble, stop elements of the bench substrate and edge receiving device. Applicant's representative agreed and submitted an amendment, which portrayed the suggested claim language.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.


 PAUL IP
 SUPERVISORY PATENT EXAMINER
 TECHNOLOGY CENTER 2800
 Examiner's signature, if required

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with N. Stephan Kinsella on March 1, 2004.

The application has been amended as follows:

62. (currently amended) An apparatus for optically coupling at least one surface-emitting laser to at least one edge-receiving optical device comprising:

(a) an optical bench substrate having a mounting surface in the x-y coordinate plane, the mounting surface having a plurality of alignment features comprising a pair of x-direction stops and a pair of y direction stops defined therein;

(b) an array comprising the at least one edge-receiving optical device, said array monolithically fabricated and mounted on the mounting surface of the optical bench substrate, wherein:

each of the at least one edge-receiving optical device has an input edge in the x-z coordinate plane, each said input edge being perpendicular to both the mounting surface and to the substrate of the at least one edge-receiving optical device, whereby each of the at least one edge-receiving optical device is adapted to receive light traveling in the y direction into its input edge; and

each of the at least one edge-receiving optical device is for conditioning light traveling in the y-direction and received at its input edge; and

(c) the at least one surface-emitting laser, said at least one surface-emitting laser having a primary epi surface from which laser radiation is emitted in a direction perpendicular to the primary epi surface, a mounting edge perpendicular to the primary epi surface, and an active region parallel to the primary epi surface and perpendicular to the direction in which the laser radiation is emitted, the at least one surface-emitting laser being mounted at its mounting edge on the mounting surface, and in the plurality of

alignment features, with the pair of x direction stops bounding the mounting edge and for securing the at least one surface-emitting laser from movement in the x direction and the pair of y direction stops bounding the mounting edge and for securing the at least one surface-emitting laser from movement in the y direction, further wherein the plurality of alignment features are positioned on said mounting surface with respect to the at least one edge-receiving optical device, so that the primary epi surface of the at least one surface-emitting laser is in the x-z coordinate plane and the at least one surface-emitting laser, when activated, will emit laser radiation in the y direction and into the input edge of the at least one edge-receiving optical device, respectively, whereby the at least one surface-emitting laser is directly optically coupled to the at least one edge-receiving optical device, respectively.

The following is an examiner's statement of reasons for allowance:

After reviewing applicant's amendment, arguments and conducting an updated search examiner finds that none of the cited prior arts alone or in combination discloses the claimed laser coupling device of independent claim 62, which provides an optical bench substrate with an edge emitting laser and a monolithically fabricated edge receiving device for achieving high precision alignment and coupling between the laser beam of the edge emitting laser and the edge receiving optical elements within the edge receiving device.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Armando Rodriguez whose telephone number is 571-272-1952. The examiner can normally be reached on 10-hour day / M-F.

Art Unit: 2828

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on 571-272-1941. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Armando Rodriguez
Examiner
Art Unit 2828


Paul Ip
Supervisor
Art Unit 2828

AR/PI